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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David Allan Collins

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06/16/2006

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EXAMINER

PEREZ, ANGELICA

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,872	COLLINS, DAVID ALLAN	
	Examiner	Art Unit	
	Perez M. Angelica	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 27-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 3/14/2006 have been fully considered but they are not persuasive.

2. In the remarks, the applicant argued in substance:

(A) In page 14, line 3, "The Examiner fails to identify any teaching in *He* of the recited load sharing group".

In response to argument (A), the examiner wants to point where the different servers that share (balance) the load comprise a "load sharing group".

(B) In page 16, lines 8-9, "For these reasons, The applicant respectfully asserts that the *He* reference fails to describe every element of Claim 27.

In response to argument (B), the examiner wants to indicate that the *He* reference does read on each and every limitation found in the claims of the present application. See rejection below.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by He (He et al.; US Patent No.: 6,671,259 B1).

Regarding claim 1, He teaches of a controller for allocating call identity values to call connections associated with a switch (column 10, lines 43-46; where a processor has control functions), the switch capable of handling call connections between calling devices and called devices on a plurality of trunk lines associated with the switch (column 1, lines 6-10; where the data calls are established from client to server), the controller comprising: N call application nodes capable of executing a plurality of identity server applications that allocate call identity values to the call connections (column 2, lines 16-38; where the application nodes are the servers), where a first one of the plurality of identity server applications is executed on a first one of the N call application nodes (column 7, lines 60-62) and is associated with a second one of the plurality of identity server applications executed on a second one of the N call application nodes separate from the first call application node (column 8, lines 32-35; "C2 is to be connected to server S2"), the first and second identity server applications thereby forming a load sharing group server application (column 7, lines 57-60; e.g., "...can change from one server to another..."), and where the first identity server application comprises a first primary-backup group server application (column 12, lines 55-65; e.g.,

"...a second LBS selector can act as a backup to a first LBS selector..."), where the first primary-backup group server application comprises a first primary identity server application executed on the first call application node and a first backup identity server application associated with the first primary identity server application (column 12, lines 55-65; e.g., "...if LBS selector F1 becomes inoperable, LBS selector B1 is activated and thereby quickly replaces the LBS selector F1") a second LBS selector can act as a backup to a first LBS selector..." and where the load sharing group server application receives a call identity request from a new call process being executed in the switch (column 3, lines 55-58; e.g., "client systems 11a, b send request to the LBS selector 15") and selects one of the first and second identity server applications to allocate a call identity value to a new call connection associated with the call identity request according to a load distribution algorithm (column 3, lines 49-54 and 58-61, respectively and column 4, lines 1-5; e.g., "selected server performs the task required by the client system") .

Regarding claim 2, He teaches all the limitations of claim 1. He further teaches where the first identity server application allocates call identity values having a first contiguous range (column 3, lines 31-33; where "group a" conforms to a range of same functions) and the second identity server application allocates call identity values having a second contiguous range different than the first contiguous range (column 3, lines 31-39; where "group b" performs the same functions corresponding to its range).

Regarding claim 3, He teaches all the limitations of claim 2. He further teaches where the load distribution algorithm distributes new call identity requests in an

alternating manner between the first and second identity server applications (column 13, lines 11-14; where "round robin fashion" corresponds to "alternating manner").

Regarding claim 4, He teaches all the limitations of claim 2. He further teaches where the load distribution algorithm distributes new call identity requests according to a current processing load of the first identity server application and a current processing load of the second identity server application (column 9, lines 52-60; e.g., "due to load"; column 7, lines 67 and 1-6).

Regarding claim 5, He teaches all the limitations of claim 4. He further teaches where the load distribution algorithm distributes the new call identity requests in order to maintain the current processing load of the first identity server application at a level substantially equal to the current processing load of the second identity server application (column 11, lines 1-10; where "load balance" corresponds to a "substantially equal load").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over He in view of Colby (Colby et al.; US Pat. No.: 2004/0,039,820 A1).

Regarding claim 7, He teaches all the limitations of claim 6.

He does not specifically teach where call state information associated with the first primary identity server application is mirrored to the first backup identity server application associated with the first primary identity server application.

In related art concerning a method and apparatus for packet flow directivity based on request and server attributes, Colby teaches where call state information associated with the first primary identity server application is mirrored to the first backup identity server application associated with the first primary identity server application (paragraph 0015; e.g., "mirroring of critical data in distributed data centers...").

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine He's controller for allocating call identity values to call connections associated with a switch with Colby's mirrored first primary identity server in order to provide backup in case of a partial communication failure as well as to allow transparent removal of servers, as taught by Colby.

Regarding claim 8, He in view of Colby teaches all the limitations of claim 7. He further teaches where the first backup identity server application resides on the first call application node (column 12, lines 55-59; where the servers correspond to different selectors, nodes).

Regarding claim 9, He in view of Colby teaches all the limitations of claim 7. He further teaches where the first backup identity server application resides on a call application node separate from the first call application node (column 13, lines 5-11; operating in the same sector, node).

Regarding claim 10, He in view of Colby teaches all the limitations of claim 2. He further teaches where the second identity server application comprises a second primary-backup group server application (column 12, lines 43-50; where client systems sectors comprise their backup servers), where the second primary-backup group server application comprises a second primary identity server application executed on the second call application node and a second backup identity server application associated with the second primary identity server application (column 10, tables 1, 2 and 3; where the applications are associated with their respective servers and backup systems as well as with other servers).

Regarding claim 11, He in view of Colby teaches all the limitations of claim 10. Colby further teaches where state information associated with the second primary call process is mirrored to the second backup call process associated with the second primary call process (0013, lines 1-5 and paragraph 0015).

Regarding claim 12, He in view of Colby teaches all the limitations of claim 11. Colby further teaches where the second backup identity server application resides on the second call application node (paragraph 0013, lines 1-5 and paragraph 0015).

Regarding claim 13. The controller as set forth in claim 11. He further teaches where the second backup identity server application resides on a call application node separate from the second call application node (column 13, lines 5-11; operating in the same sector, node).

7. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over He (He et al.; US Patent No.: 6,671,259 B1) in view of Ueno (Ueno et al.; US Patent No.: 5,754,959)

Regarding claim 14, He teaches of controller for allocating call identity values to call connections associated with a switch (column 10, lines 43-46; where a processor has control functions), the switch capable of handling call connections between calling devices and called devices on a plurality of trunk lines associated with the switch (column 1, lines 6-10; where the data calls are established from client to server), the controller comprising: N call application nodes capable of executing a plurality of identity server applications that allocate call identity values to the call connections (column 2, lines 16-38; where the application nodes are the servers), where a first one of the plurality of identity server applications is executed on a first one of the N call application nodes (column 7, lines 60-62) and is associated with a second one of the plurality of identity server applications executed on a second one of the N call application nodes separate from the first call application node (column 8, lines 32-35; "C2 is to be connected to server S2"), the first and second identity server applications thereby forming a load sharing group server application (column 7, lines 57-60; e.g., "... can change from one server to another..."), and where the first identity server application comprises a first primary-backup group server application (column 12, lines 55-65; e.g., "...a second LBS selector can act as a backup to a first LBS selector..."), where the first primary-backup group server application comprises a first primary identity server application executed on the first call application node and a first backup identity server

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application associated with the first primary identity server application (column 12, lines 55-65; e.g., "...if LBS selector F1 becomes inoperable, LBS selector B1 is activated and thereby quickly replaces the LBS selector F1") a second LBS selector can act as a backup to a first LBS selector..." and where the load sharing group server application receives a call identity request from a new call process being executed in the switch (column 3, lines 55-58; e.g., "client systems 11a, b send request to the LBS selector 15") and selects one of the first and second identity server applications to allocate a call identity value to a new call connection associated with the call identity request according to a load distribution algorithm (column 3, lines 49-54 and 58-61, respectively and column 4, lines 1-5; e.g., "selected server performs the task required by the client system").

He does not specifically teach of a wireless network comprising: a plurality of base stations capable of communicating with a plurality of mobile stations in a coverage area of the wireless network; and a mobile switching center coupled to the plurality of base stations and to a public switched telephone network by a plurality of trunk lines.

In related art concerning mobile communication systems with a load balancing feature, Ueno teaches of a wireless network comprising (figure 1): a plurality of base stations capable of communicating with a plurality of mobile stations in a coverage area of the wireless network (figure 1, items MS and BS); and a mobile switching center coupled to the plurality of base stations and to a public switched telephone network by a plurality of trunk lines (figure 1, item 1).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine He's controller for allocating call identity values to call connections associated with a switch with Ueno's wireless network in order to equalize loads in the wireless system, as taught by Ueno.

Regarding claim 15, He in view of Ueno teaches all the limitations of claim 14. He further teaches where the first identity server application allocates call identity values having a first contiguous range (column 3, lines 31-33; where "group *a*" conforms to a range of same functions) and the second identity server application allocates call identity values having a second contiguous range different than the first contiguous range (column 3, lines 31-39; where "group *b*" performs the same functions corresponding to its range).

Regarding claim 16, He in view of Ueno teaches all the limitations of claim 15. He further teaches where the load distribution algorithm distributes new call identity requests in an alternating manner between the first and second identity server applications (column 13, lines 11-14; where "round robin fashion" corresponds to "alternating manner").

Regarding claim 17, He in view of Ueno teaches all the limitations of claim 15. He further teaches where the load distribution algorithm distributes new call identity requests according to a current processing load of the first identity server application and a current processing load of the second identity server application (column 9, lines 52-60; e.g., "due to load"; column 7, lines 67 and 1-6).

Regarding claim 18, He in view of Ueno teaches all the limitations of claim 17. He further teaches where the load distribution algorithm distributes the new call identity requests in order to maintain the current processing load of the first identity server application at a level substantially equal to the current processing load of the second identity server application (column 11, lines 1-10; where "load balance" corresponds to a "substantially equal load").

Regarding claim 19, He in view of Ueno teaches all the limitations of claim 15. He further teaches where the first identity server application comprises a first primary-backup group server application (column 12, lines 55-65; e.g., "...a second LBS selector can act as a backup to a first LBS selector..."), where the first primary-backup group server application comprises a first primary identity server application executed on the first call application node and a first backup identity server application associated with the first primary identity server application (column 12, lines 55-65; e.g., "...if LBS selector F1 becomes inoperable, LBS selector B1 is activated and thereby quickly replaces the LBS selector F1") a second LBS selector can act as a backup to a first LBS selector...").

8. Claims 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over He in view of Ueno as applied to claim 19 above, and further in view of Colby.

Regarding claim 20, He in view of Ueno teaches all the limitations of claim 19.

He in view of Ueno does not specifically teach where call state information associated with the first primary identity server application is mirrored to the first backup identity server application associated with the first primary identity server application.

In related art concerning a method and apparatus for packet flow directivity based on request and server attributes, Colby teaches where call state information associated with the first primary identity server application is mirrored to the first backup identity server application associated with the first primary identity server application (paragraph 0015; e.g., "mirroring of critical data in distributed data centers...").

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine He's and Ueno's controller for allocating call identity values to call connections associated with a switch with Colby's mirrored first primary identity server in order to provide backup in case of a partial communication failure as well as to allow transparent removal of servers, as taught by Colby.

Regarding claim 21, He in view of Ueno and further in view of Colby teaches all the limitations of claim 20. He further teaches where the first backup identity server application resides on the first call application node (column 12, lines 55-59; where the servers correspond to different selectors, nodes).

Regarding claim 22, He in view of Ueno and further in view of Colby teaches all the limitations of claim 20. He further teaches where the first backup identity server application resides on a call application node separate from the first call application node (column 13, lines 5-11; operating in the same sector, node).

Regarding claim 23, He in view of Ueno and further in view of Colby teaches all the limitations of claim 15. He further teaches where the second identity server application comprises a second primary-backup group server application (column 12, lines 43-50; where client systems sectors comprise their backup servers), where the

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second primary-backup group server application comprises a second primary identity server application executed on the second call application node and a second backup identity server application associated with the second primary identity server application (column 10, tables 1, 2 and 3; where the applications are associated with their respective servers and backup systems as well as with other servers).

Regarding claim 24, He in view of Ueno and further in view of Colby teaches all the limitations of claim 23. Colby further teaches where state information associated with the second primary call process is mirrored to the second backup call process associated with the second primary call process (0013, lines 1-5 and paragraph 0015).

Regarding claim 25, He in view of Ueno and further in view of Colby teaches all the limitations of claim 12. Colby further teaches where the second backup identity server application resides on the second call application node (0013, lines 1-5 and paragraph 0015).

Regarding claim 26. He in view of Ueno and further in view of Colby teaches all the limitations of 24. He further teaches where the second backup identity server application resides on a call application node separate from the second call application node (column 13, lines 5-11; operating in the same sector, node).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.


Angelica Perez
(Examiner)


NAY MAUNG
SUPERVISORY PATENT EXAMINER

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May 9, 2006